

L 7848-66

ACC NR: AP5028115

Classification of barium titanate dopants

Class	Dopant
A	Zr ⁴⁺ , Hf ⁴⁺ , Sn ⁴⁺
B	Co ²⁺ , Th ⁴⁺ Sb ³⁺ , Nb ⁵⁺ , Ta ⁵⁺
C	Sr ²⁺ , Gd ³⁺ V ²⁺ , W ⁶⁺ , Mo ⁶⁺
D	Fe ³⁺ , Co ²⁺ , Ni ²⁺ , Lu ³⁺ , Yb ³⁺ , Tm ³⁺ , Er ³⁺ Cr ³⁺ , Mn ²⁺

These assignments and possible mechanisms by which the different dopants might exert their influence are discussed briefly. Orig. art. has: 3 figures and 1 table.

SUB CODE: SS,EM

SUBM DATE: 00/

ORIG. REF: 019 OTH REF: 008

Card 2/2

V. YA. KOMAROV,

53/49T47

USSR/Engineering
Turbines
Electric Power Stations

Jun 49

"Shortening a Turbine's Starting Time," V. Ya.
Komarov, Engr, 1 p

"Elek Stants" No 6

Lengpromenergostash Trust has carried out extensive experiments showing that "starting time" of a turbine depends primarily on heating time of cylinder flanges. Observations showed that heat expansion of the rotor precedes heat expansion of the cylinder. To shorten "starting time" of turbine, horizontal flanges of the cylinder should be preheated.

53/49T47

L 21355-65 EPF(c)/EPR/ENG(z)/EWT(m)/EWP(b)/T/EWP(e)/EWP(t)/ Pr-4/Ps-4
 IJP(c)/AFDL/SSD WH/WH/JD
 ACCESSION NR: AP5000857 S/0166/64/000/005/0037/0040

AUTHOR: Starodubtsev, S.V.; Khrushchev, B.I.; Belyakov, V.A.; Komarov, V.E.

TITLE: Measurement of neutron spectra by a monocrystalline spectrometer in the
thermal region

SOURCE: AN UzSSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, no. 5, 1964, 37-40

TOPIC TAGS: neutron diffraction, crystal spectrometry, monocrystalline lead, thermal
 neutron

ABSTRACT: A method suitable for investigating the spectra of thermal neutrons with wavelengths from 1.0 to 5.3 Å is described. In this method, reflection from the (111) plane of monocrystalline lead is utilized to analyze the neutron beam. The scattering by the crystal is shown schematically in Fig. 1 of the Enclosure. The angle of cut relative to the (111) plane is denoted by α ; y is the width of the impinging beam, x that of the reflected beam. The experimental device is shown schematically in Fig. 2 of the Enclosure. The graphite plugs are each 50 cm in length. A fraction of the order of 1% of the basic beam is scattered by the device. Fig. 3 of the Enclosure shows the spectrum obtained by the device. The distribution is approximately maxwellian. Orig. art. has: 5 figures and 4 equations.

Card 1/52

L 21355-65

ACCESSION NR: AP5000857

ASSOCIATION: Institut yadernoy fiziki AN Uz SSR (Nuclear Physics Institute, AN Uz SSR)

SUBMITTED: 26Aug63

ENCL: 03

SUB CODE: NP, OP

NO REF SOV: 000

OTHER: 002

Card 2/5

KOIAROV, V. F., Engineer

Cand Tech Sci

Dissertation: "Dynamic Method for Purification of Water-Alcohol Solutions with Activated Charcoal and Regeneration of Used Charcoal in Filters with Steam and Air."

28/6/50

Moscow Order of Lenin Chemical-Technological Institute D. I. Mendeleev.

**SO Vecheryaya Moskva
Sum 71**

BOLDYREV, V.V.; SAVINTSEV, Yu.F.; KOMAROV, V.F.

Effect of water vapor pressure on the rate of growth of nuclei in
the thermal decomposition of ammonium perchlorate. Kin. i kat. 6
no.4:732-734 JI-Ag '65. (MIRA 18:9)

1. Institut khimicheskoy kinetiki i goreniya Sibirskogo otdeleniya
AN SSSR i Tomskiy gosudarstvennyy universitet imeni V.V.Kuybysheva.

L 64299-65 EWT(m)/EPF(o)/EWA(d)/EWP(j)/T WW/RM
ACCESSION NR: AP5020990 UR/0195/65/006/004/0766/0766
541.7

AUTHOR: Boldyrev, V. V.; Shmidt, I. V.; Pis'menko, V. I.; Shvartsberg, M. S.;
Kotlyarevskiy, I. L.; Andriyevskiy, V. N.; Komarov, V. P.

TITLE: Effect of additions of organic compounds with conjugate bonds on the rate
of thermal decomposition of solid substances

SOURCE: Kinetika i kataliz, v. 6, no. 4, 1965, 766

TOPIC TAGS thermal decomposition, solid kinetics, conjugate bond system,
silver compound, topochemistry

ABSTRACT: It has been observed that certain organic compounds with a system
of conjugate multiple bonds exert an effect on the rate of thermal decomposition.
Tests were made of the effect of heterophas additions (5% on the weight of oxalate)
of conjugate alpha, omega-diarylpolyenes (I)-(IV) on the rate of thermal decom-
position of silver oxalate at 133C. A figure is given which shows a plot of the de-
gree of conversion against time. Results show that additions of the above sub-

Card 1/2

L 64299-65

ACCESSION NR: AP8020890

2

stances bring about just as sharp a decrease in the decomposition rate as do the inorganic additives ordinarily employed for this purpose. The effect of organic compounds on the rate of topochemical processes is evidently connected with the special characteristics of the redistribution of the electrons between the additive and the oxalate. Orig. art. has: 1 figure.

ASSOCIATION: Institute khimicheskoy Kinetiki i goreniya SO AN SSSR (Institute of Chemical Kinetics and Combustion of the Siberian Branch AN SSSR)

SUBMITTED: 20Mar65

ENCL: 00

SUB CODE: 00, TD

NR REF SOV: 004

OTHER: 004

Card 1/2

ACC APPROVED FOR RELEASE: 06/13/2000 SOURCE CIA-RDP86-00513R000824110004-1

AUTHOR: Komarov, V. F.; Boldyrev, V. V.; Zhuravlev, V. K.; Ivanov, G. V.

ORG: Tomsk Polytechnical Institute im. S. M. Kirov (Tomskiy politekhnicheskii institut); Institute of Chemical Kinetics and Combustion, SO AN SSSR (Institut khimicheskoy kinetiki i goreniya SO AN SSSR)

TITLE: The mechanism of the effect of preliminary irradiation on the rate of thermal decomposition of ammonium perchlorate

SOURCE: Kinetika i kataliz, v. 7, no. 4, 1966, 788-794

TOPIC TAGS: ammonium perchlorate, thermal decomposition, irradiation effect, contaminant effect, chlorate ion, chloride ion, radiation induced defect, ammonium compound, perchlorate, x ray irradiation

ABSTRACT: A study has been made of the acceleration mechanism of the thermal decomposition of high-purity NH_4ClO_4 preliminarily irradiated at room temperature with 200 kev x-rays on an RUP-200 apparatus. The decomposition rate of irradiated NH_4ClO_4 was compared with that of nonirradiated NH_4ClO_4 and of NH_4ClO_4 contaminated with ClO_3^- and Cl^- ions. The results of experiments conducted at 2360 are given in figures 1 and 2. Curves 1, 2, 3 and 4 pertain to pure NH_4ClO_4 , NH_4ClO_4 containing 0.153 mol% ClO_3^- , NH_4ClO_4 containing 1.13 mol% ClO_3^- , and NH_4ClO_4 irradiated with a dose of 4.5×10^6 rad, respectively. Discussion of the mechanism of the thermal decomposition of pure NH_4ClO_4 led to the conclusion that the decomposition is a result of losses of electrons by ClO_4^- ions to form ClO_4^\cdot free radicals. The electrons.

Card 1/3

UDC: 546.39'137:541. 5

ACC NR: AP6034397

are gained by impurity levels such as ClO_3^- ions formed in the course of the decomposition (Table 1). Theoretical analysis of the processes taking place and experimental

Table 1. Impurity content in the solid NH_4ClO_4 per due

Degree of decomposition of NH_4ClO_4 , %	Impurity content, mol%	
	Cl^-	ClO_3^- , ClO^- , ClO_2^-
16.1	0.301	0.275
23.0	0.101	0.068
30.0	0.025	0.024

results indicated that the reaction rate of the thermal decomposition of NH_4ClO_4 increases with a decrease of the concentration of free electrons in NH_4ClO_4 . In the case of irradiated NH_4ClO_4 , the formation of ClO_3^- ions is probably not the only factors that accelerates thermal decomposition. Three possible additional factors are considered: 1) the arrangement of ClO_3^- ions formed at irradiation is not that it increases their catalytic activity; 2) formation of additional radiolysis products such as, among others, Cl^- ions; however, no acceleration was observed on addition to NH_4ClO_4 of the same amounts of Cl^- ions as are formed (a irradiation; 3) formation of radiation-induced defects. Among these factors, the formation of defects appears to be most probable. Determination of the type of these defects requires further studies. A

Card 2/3

ACC NR: AP6034397

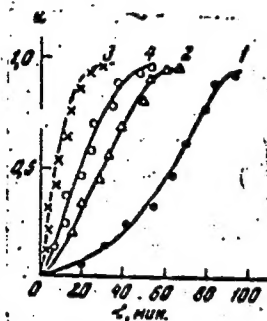


Fig. 1. Effect of irradiation or addition of ClO_3^- ions on the thermal decomposition of NH_4ClO_4 .

α - Portion of reacted substance; $\alpha = 1$ is the decomposition of 30% of the salt specimen (maximum decomposition at low temperatures).

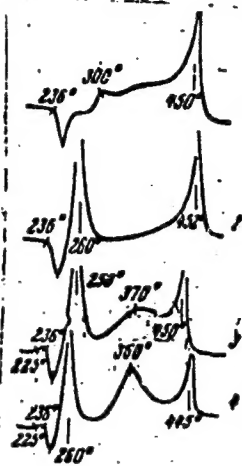


Fig. 2. Thermograms of pure, irradiated and contaminated NH_4ClO_4 .

similarity was established in the nature of changes of conduction, dielectric losses and decomposition rate on contamination and irradiation of NH_4ClO_4 . This fact indicates that, in both cases, these changes are due to the same defects. Orig. art. has: 4 figures and 2 tables.

SUB CODE: 20 / SUBM DATE: 18May65/ ORIG REF: 010/ OTH RE: 017/

Card 3/3

SAKOVICH, G.V.; KOMAROV, V.F.

Dehydration of copper sulfate pentahydrate in a stream of air
at specific water vapor pressures. Zhur.nerog.khim. 5 no.2:
381-384 F '60. (MIRA 13:6)

(Copper sulfate)

YAKOVLEV, Dmitriy Georgiyevich; NUDEL'MAN, Ol'ga Emmanuilovna;
KOMAROV, V.F., kand. tekhn. nauk, retsenzent; BALANDIN,
A.F., red.izd-va; SOKOLOVA, T.F., tekhn. red.

[Readjusted automatic lines of modernized multiple-purpose
machine tools for the manufacture of taps] Perenalazhi-
vaemye avtomaticheskie linii iz modernizirovannykh univer-
sal'nykh stankov dlia izgotovleniia meshchikov. Moskva,
Mashgiz, 1962. 226 p. (MIRA 15:3)
(Assembly line methods) (Automation)

KOMAROV, V.F.

Improvement of a standard technological system for the manufacture of vodka. Trudy TSNII SP no.7:119-130 '59. (MIRA 13:9)
(Liquor industry---Equipment and supplies)

KREMNEV, Afanasiy Ivanovich; KOMAROV, V.P., retsensent; DENIS'YEV, V.I.,
retsensent; LOBOVIKOV, T.S., red.; SOKOL'SKAYA, Zh.M., red.
izd-va; REYZMAN, Ye.Ye., tekhn.red.

[Economics of the Soviet lumber industry] Ekonomika lesnoi
promyshlennosti SSSR. Moskva, Goslesbumizdat, 1958. 181 p.
(MIRA 12:2)

(Lumbering--Finance)

GUSEVA, A.A.; KOMAROV, V.F.

Automatic reverse two-system jacquard knitting machine for hosiery.
Tekst. prom. 19 no.7:54-61 J1 '59. (MIRA 12:11)
(Knitting machines) (Hosiery)

Technology

Bakery products. Moskva, Gostorgizdat, 1951.

9. Monthly List of Russian Accessions, Library of Congress, April 195⁴₂, Uncl.

KOMAROV, V. F.

Iz opyta raboty sel'skoi khlebopekarni [Work practice of a village bakery].
Moskva, Tsentrosoiuz, 1952. 20 p.

SO: Monthly List of Russian Acquisitions, Vol. 7 No. 2 May 1954.

ACCESSION NR. AF5011937

541.123+546.72+546.711+546.21

33
37
6

Author: Komarov, V. F.; Oleynikov, N. N.; Saksonov, Yu. G.; Tret'yakov, Yu. D.
Investigation of solid solutions with spinel structure in the iron-
manganese-oxygen system

Investiya. Neorganicheskiye materiyaly, v. 1, no. 3, 1965.

Keywords: solid solution, spinel, iron, manganese, manganese ferrite

ABSTRACT: The object of the study was to determine the equilibria between the
manganese spinels and gaseous oxygen at 1400°C and to estimate the thermodynamic
properties of $\text{Fe}_{1-x}\text{Mn}_x\text{O}_4$ solid solutions on the basis of the experimental
data. Homogeneous and pure mixtures of FeO and MnO were pre-
pared by decomposition of solid solutions of FeO and MnO in CaSO_4 .
The composition of solid solutions was varied from FeO to MnO . The
oxygen containing gas (O_2 partial pressure) was varied from 0.1 atm to 1 atm.

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L 68995-65

ACCESSION NR: AP5011937

for 4 hours at a rate of 1 cm/sec through a 0.4 to 0.5 gram spinel sample placed in a furnace at 1400°C. The compositions of the $Mn_xFe_{3-x}O_4$ systems were characterized only by the values of x and y . Manganese-rich solid solutions ($x > 1$) were dissolved in Mohr salt containing HCl solutions and the excess of Mohr salt was determined by potentiometric titration with Ce (IV) sulfate. The " y " parameter was determined from equation:

$$y = \frac{1}{2} \cdot \frac{1 - x - kM}{1 - 8k}$$

where; k is the number of gram equivalents of Fe^{2+} ions in 1 gram of dissolved solid phase; M is the molecular weight of $Mn_xFe_{3-x}O_4$. For solid solutions containing Mn^{3+} ions along with Mn^{2+} and Fe^{3+} , y was determined from equation:

$$y = \frac{1}{2} \cdot \frac{1 + x - LM}{1 - 8L}$$

where L is the number of gram equivalents of Mn^{3+} ions in 1 gram of dissolved solid phase. The " x " parameter was determined experimentally as a function of y ($y = f(x)$) for all three partial pressures of oxygen in the gas phase. For each

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L 54995-65

ACCESSION NR: AP5011937

series of solid solutions (obtained at different O_2 partial pressures) the lattice parameters a (in Å) and ratios of lattice parameters c/a were determined by x-ray diffraction. For each component of the spinel phase of the $MnFe_2O_4$ - Fe_3O_4 - Fe_2O_3 and Fe_3O_4 - Fe_2O_3 systems the thermodynamic properties (molar free energies) were determined from experimental data using a simplified statistical model and the Boltzmann equation. It was established that at oxygen pressures lower than 1 atm the solid solution of manganese ferrite, magnetite and γ -iron oxide, and also $MnFe_2O_4$ - Fe_3O_4 -oxygen solid solutions are close to ideal. Orig. art. has: 4 tables, 1 figure, and 2 formulas.

ASSOCIATION: Khimicheskiy fakultet Moskovskogo gosudarstvennogo universiteta im. M. V. Lomonosova (Department of Chemistry, Moscow State University)

SUBMITTED: 25Jul64

ENCL: 00

SUB CODE: MM, SS

NO REF SOV: 003

OTHER: 018

Card 3/3

NP: AP5020987

541.17

ed by: V. V. Savintsev, Yu. P. Kargin

water vapor pressure on the growth rate of crystals in the thermal
decomposition of ammonium perchlorate

Zh. fiz. khim. 40, no. 4, 1965, 732-734

INDEXING TAGS: thermal decomposition, ammonium compound, vapor pressure,
single crystal, vaporization, nucleation, photography

ABSTRACT: Crystals of ammonium perchlorate were grown by the slow isotherm-
al evaporation of a saturated solution of ammonium perchlorate. The most per-
fect crystals, with a predominantly developed rhombic face structure, were cho-
sen under a microscope. The crystal to be investigated was placed in a thermal
chamber fastened on the stand of a MBI-3 microscope. The construction of the
chamber made possible observation and photography of the crystal, measurement
of the temperature of the crystal at the moment of dissociation, and carrying out
of the decomposition in a given gas atmosphere. Air was flowed through the
chamber at a constant rate of 6 liter/hour and the crystal was photographed at

Cs-11/2

L 64298-65
ACCESSION NR: AP5020987

6 17

determined time intervals. Kinetic measurements were made by comparison of the number of nuclei and their dimensions during the course of the process. All experiments were carried out at a temperature of $230 \pm 10^\circ$. Article shows photos of the crystal surface, and gives experimental data on reaction rates. It is concluded that the change in the overall rate of the thermal decomposition of ammonium perchlorate with a different content of water vapor in the surrounding atmosphere is a function of the change in the growth rate of the nuclei. Orig. art. 4 figures

44,55

ASSOCIATION: Institut khimicheskoy kinetiki i goreniya SO AN SSSR (Institute of Chemical Kinetics and Combustion, Siberian Branch, AN SSSR); Tomskiy gosudarstvennyy universitet, V. V. Kulysheva (Tomsk State University)

44,55

SUBMITTED: 21 Jul64

ENCL: 00

SUB CODE: IC, 00

NR REF SOV: 004

OTHER: 003

Card 2/2

BOLDYREV, V.V.; SHMIDT, I.V.; PIS'MENKO, V.I.; SHVARTSBERG, M.S.; KOTLYAREVSKIY, I.L.; ANDRIYEVSKIY, V.N.; KOMAROV, V.F.

Effect of additions of organic compounds with conjugated bonds on the rate of thermal decomposition of solids. Kin. i kat. 6 no.4: 766 JI-Ag '65. (MIRA 18:9)

1. Institut khimicheskoy kinetiki i goreniya Sibirskogo otdeleniya AN SSSR.

ROMANOV, Vasily Filippovich

Torgovlya khlebobukhlochnymi tovarami (Baked Goods Traffic), Second Edition. Torgizdat. 1953 99p.

The booklet gives information on the raw materials used in the production of baked goods, includes classification and assortment of baked goods, and gives a brief description of peculiarities of the technological process. Special chapters of the book are devoted to the problem of the transportation, and the organization and technique of traffic of these goods.

The booklet is intended as an aid for improving the skills of baked goods sales clerks.

SO: Sovetskkiye knigi (Soviet Books), No. 187, 1953, Moscow, (U-6472)

KOMAROV, V.F.; SAKHAROV, Ye.S.; VALL, G.A.

Problem of the unequal value of the energy state of water
molecules in gypsum. Zhur. VKHO 7 no.6:692-694 '62.

(MIRA 15:12)

1. Nauchno-issledovatel'skiy institut yadernoy fiziki,
elektroniki i avtomatiki pri Tomskom politekhnicheskoy
institute imeni S.M. Kirova.

(Gypsum)

(Dehydration (Chemistry))

KOMAROV, V. G.

Cand Tech Sci

Dissertation: "Concerning the Qualities of
Flax Yarn Due to a Spinning Method in Connection
with Studying the Problem of Increasing the
Durability of Flax Linen Fabrics."

4/5/50

Moscow Textile Inst.

SO Vecheryaya Moskva
Sum 71

KOMAROV V.G.

KOMAROV, V.G., dotsent

The evaluation of flax fiber. Tekst.prom.15 no.9:9-10 S '55.
(MIRA 8:11)

1. Kostromskii tekstil'nyy institut
(Flax)

KOMAROV, V.G., kand. tekhn. nauk, dots.

Determining the characteristics of flax fibers. Izv. vys. ucheb.
zav.; tekhn. tekst. prom. no.1:49-55 '58. (MIRA 11:5)

1. Kostromskoy tekstil'nyy institut.
(Flax) (Yarn--Testing)

KOMAROV, V.G.

Stretch strength of wet-spun straight yarn. Izv.vys.ucheb.zav.;
tekhn.tekst.prom. no.2:41-51 '58. (MIRA 11:5)

1. Kostromskoy tekstil'nyy institut.
(Yarn)

KOMAROV, V.G.

Some remarks on I.I. Feiman's article "Relation of yarn section
to its number and twist.". Izv.vys.ucheb.nav.; tekhn.tekst.prom.
no.4:184-185 '58. (MIRA 11:11)

(Yarn)

KOMAROV, V.G.

Characteristics of wet spun linen yarn. Izv.vys.ucheb.zav.;
tekhn.tekst.prom. no.6:20-28 '58. (MIRA 12:4)

1. Kostromskoy tekstil'nyy institut.
(Linen) (Yarn--Testing)

KOMAROV, V.G.

Determining the strength of flax yarn. Izv.vys.ucheb.zav.; tekhn.
tekst.prom. no.5:20-24 '61. (MIRA 14:11)

I. Kostromskoy tekstil'nyy institut.
(Flax--Testing)

KOMAROV, V.G., prof., red.; LABUNTSOV, V.A., kand. tekhn. nauk, red.;
ANTIK, I.V., red.; FRIDKIN, L.M., tekhn. red.

[Regulated transistor current rectifiers] Poluprovodnikovye upravliaemye ventili; sbornik perevodnykh statei. Moskva, Gos-energoizdat, 1962. 159 p. Translated articles. (MIRA 16:2)
(Electric current rectifiers)

KORITSKIY, Konstantin Ivanovich; KOMAROV, V.G., retsensent; GROMOVA,
T.G., red.; BATYREVA, G.G., tekh. red.

[Fundamentals of the design of yarn properties] Osnovy pro-
ektirovaniia svoisty priazhi. Moskva, Gizlegprom, 1963.
245 p. (MIRA 16:6)

(Yarn)

KOMAROV, V.G., dotsent; VOLKOV, Yu.V., aspirant

Using the wet method for flax spinning with the by-passing
of roving. Tekst. prom. 23 no.12:28-32 D '63.

(MIRA 17:1)

1. Kostromskiy tekhnologicheskii institut.

KOMAROV, V.I., kand.tekhn.nauk; PAVLOV, A.N., kand.tekhn.nauk

Use of three-core flexible cables without ground core on SVF-3
and UFF-2 machines. Torf. prom. 35 no.6:19-22 '58. (MIRA 11:10)

1.Moskovskiy torfyanoy institut.
(Peat machinery)

AKIMOV, Yu.K.; KOMAROV, V.I.; SAVCHENKO, O.V.; SOROKO, L.M.

Separation of particles according to the ionization value in
some scintillation counters. Prib.i tekhn.eksp. no.4:71-77
Jl-Ag '60. (MIRA 13:8)

1. Ob'yedinennyy institut yadernykh issledovaniy.
(Scintillation counters)

KOMAROV, V. I.

86666

9.6150
26.2244

P/045/60/019/006/005/012
B011/B059

AUTHORS: Yeffseyev, W. S., Komarov, W. J., Kusch, W., Roganov, W.S.,
Tohernogorova, W. A., Szymozak, M.

TITLE: Fast-neutron Scintillation Layer Detector for Measurements
Against a Gamma Background

PERIODICAL: Acta Physica Polonica, 1960, Vol: 19, No. 6, pp. 675-682

TEXT: The authors describe a scintillation layer detector with high efficiency for fast neutrons and low efficiency for gamma rays. The layer detector is based upon the difference between the range of protons and electrons of the same energy. The detector is designed for neutron measurements in the energy range between 5 and 20 Mev and consists of 28 layers made of plastic scintillators (on the basis of polystyrene), and is arranged in two sections, one behind the other. In each section, the light from the even layers is directed into two FEU-29 photomultipliers, the light from the odd layers is led into two other FEU-29 photomultipliers.

Card 1/2

86666

Fast-neutron Scintillation Layer Detector P/045/60/019/006/005/012
for Measurements Against a Gamma Back- B011/B059
ground

If the electron energy is sufficiently high so that the electron can pass into the adjacent layer, then both photomultiplier sets (odd and even) will produce pulses simultaneously. The electronic circuit cancels those coincidences and allows only single pulses (produced in any of the photomultipliers) to reach the pulse-height analyzer. In order to characterize the decrease in counting efficiency for neutrons and gamma rays when the coincidence circuit (resolution 0.4μ sec, veto pulse 0.6μ sec) is turned on, the discrimination coefficient (ratio of pulses with coincidence circuit off to pulses with coincidence circuit on, both at the same level of the integral discriminator) is introduced. For neutrons, this coefficient did not exceed 1.5, for gamma quanta, however, it had much higher values. The authors thank N. W. Sizov for help in the work with the Cockcroft-Walton-type accelerator, as well as D. K. Akimov and V. A. Zapevailo for their assistance in the construction of the electronic part. There are 6 figures and 6 references: 2 Soviet and 3 US.

ASSOCIATION: Joint Institute of Nuclear Research, Dubna, USSR

SUBMITTED: April 6, 1960
Card 2/2

YEVSEYEV, V.I.; KOMAROV, V.I.; KUSH, V.Z.; ROGANOV, V.S.; CHERNOGOROVA,
V.A.; SHIMCHAK, M.M.

[Asymmetry in the angular distribution of neutrons emitted in the
capture of π^- -mesons in calcium] Asimmetriia v uglovom raspredelenii
neitronov, ispuskaemykh pri zakhvate π^- -mezonov v kal'tsii.
Dubna, Ob"edinennyi in-t iadernykh issl., 1961. 27 p.

(MIRA 14:11)

(Neutrons) (Mesons--Capture) (Calcium)

YEVSEYEV, V.S.; KOMAROV, V.I.; KUSH, V.Z.; ROGANOV, V.S.; CHERNOGOROVA, V.A.;
SHIMCHAK, M.M.

Asymmetry of the angular distribution of neutrons emitted in the
capture of μ^- -mesons in calcium. Zhur.eksp.i teor.fiz. 41
no.1:306-307 J1 '61. (MIRA 14:7)

1. Ob'yedinennyy institut yadernykh issledovaniy.
(Mesons—Capture) (Neutrons—Scattering)

20685

S/120/61/000/001/020/062

EO32/E314

26.2244

AUTHORS: Yevseyev, V.S., Komarov, V.I., Kush, V.Z.,
Roganov, V.S., Chernogorova, V.A. and Shimchak, M.M.

TITLE: A Multilayer Scintillation Detector for the
Recording of Neutrons in the Presence of γ -rays

PERIODICAL: Priory i tekhnika eksperimenta, 1961, No. 1,
pp. 68 - 72

TEXT: A description is given of a neutron detector having a high sensitivity to neutrons but a low sensitivity to γ -rays. The detector is designed for the energy range 5-20 MeV. The detector is similar to that reported by Baker and Rubbia (Ref. 4). The multilayer detector is based on the difference between the ranges of protons and electrons of the same energy. The detector consists of a number of thin scintillators, each having a thickness h . The scintillators are separated by opaque partitions. The device is so arranged that scintillations from layers 1, 3, 5, etc. are recorded by one photomultiplier and scintillations from the remaining layers by another. If the energy of an electron is sufficient

Card 1/4

20685

S/120/61/000/001/020/062
E032/E314

A Multilayer

for it to penetrate into a neighbouring layer, then coincident pulses will be produced in the two photomultipliers. The electronic circuitry employed is such that it rejects coincident pulses. Non-coincident pulses arising in either of the photomultipliers are analysed by a kicksorter. In this way, one can separate recoil protons from electrons due to γ -rays. The multilayer detector consists of 28 discs (diameter 80 mm, $h = 4$ mm). The discs are made from a plastic based on polystyrene with the addition of 2% p-terphenyl + 0.2% α NPO. The neighbouring discs are separated from each other by pieces of black paper, 0.05 mm thick. The detector consists of two identical parts placed in series. In each part, scintillations from "even" discs are collected through perspex light pipes by the corresponding to multipliers, whilst the scintillations from the "odd" discs are collected by two other photomultipliers. In order to prevent the light from the "even" discs from entering the photomultipliers belonging to the "odd" discs (and conversely), the side surfaces of the discs are separated into four equal parts and two (opposite) of these are covered

Card 2/4

20685

S/120/61/000/001/020/062
E032/E314

A Multilayer

by an aluminium foil. Altogether, the detector incorporates 8 photomultipliers of the type QY-1 (FEU-29). Each photomultiplier was placed in a separate magnetic screen made of soft iron. The light guides were not in optical contact with the scintillators, which reduced the amplitude of the pulses but simplified the operation. Pulses from each photomultiplier group were amplified and equalised in amplitude. The maximum

amplitude of Co^{60} γ -ray pulses was about 0.01 V. The pulses were then fed into an adding circuit and the pulses from the adding circuit and those from one of the photomultiplier groups were fed into a coincidence circuit and a discriminator, which were so arranged that coincident pulses were rejected while those which were not in coincidence were allowed to pass on into a kicksorter. Detailed tests carried out on this detector have shown that its sensitivity to γ -rays is lower by a factor of 2 and its sensitivity to neutrons is higher by a factor of 2, as compared with the detector reported by Baker and Rubbia in Ref. 4. It is said that this is due to the fact that the thickness of each scintillator in the present instrument is

Card 3/4

20685

A Multilayer

S/120/61/000/001/020/062
E032/E314

lower by a factor of 1.2 while the total thickness of the device is smaller by a factor of 2.7, as compared with Ref. 4. There are 6 figures and 6 references; 2 Soviet and 4 non-Soviet.

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy
(Institute for Nuclear Research)

SUBMITTED: February 5, 1960

Card 4/4

AKIMOV, Yu.K.; KOMAROV, V.I.; MARISH, K.S.; SAVCHENKO, O.V.; SOROKO, L.M.

Search for anomalies in the spectrum of H^3 nuclei emitted
in the reaction $p+d \rightarrow H^3 + \pi^+$ at a proton energy
of 670 Mev. Zhur. eksp. i teor. fiz. 40 no.5:1532-1535 My
'61. (MIRA 14:7)

1. Ob'yedinennyy institut yadernykh issledovaniy.
(Nuclear reactions) (Mesons) (Protons)

TUPITSYN, I.F.; KOMAROV, V.I.

Hydrogen rearrangement in purrole. Trudy GIPKH no.49:141-148 '62.
(MIRA 17:11)

ATAMALYAN, E.G.; KONSTANTINOV, V.I.; KOMAROV, V.I.; LAPSHIN, N.S.;
SIMONOV, A.F.; TOVSTOLES, V.Ya.; EMDINA, S.M.; PONOMARENKO,
V.K., prof., red.; KHRUSTALEVA, N.I., red.; GOROKHOVA, S.S.,
tekhn. red.

[Methodology for solving general electrical engineering
problems]Metodika reshenia zadach po obshchei elektrotekh-
nike. [By] E.G.Atamalian i dr. Pod red. V.K.Ponomarenko.
Moskva, Vysshaya shkola, 1962. 167 p. (MIRA 15:12)
(Electric engineering)

AKIMOV, Yu. K., KDMAROV, V. I., KEMARISH, SAVCHENKO, O. V., SOROKO, L. M.

" $\gamma\gamma$ -Anomalies of the H^3 -Spectrum in the Reaction $p + d \rightarrow H^3 + \gamma + \pi^0$
at the Proton Energy of 670 Mev⁺)"

report presented at the Intl. Conference on High Energy Physics, Geneva,
4-11 July 1962.

Lab. of Nuclear Problems, *Joint Inst. Nuclear Research*

YEFFSEYEV, W.I.; KOMAROV, ^W~~N~~.I.; KUSCH, W.; ROGANOV, W.S.; TCHERNOGOROVA, W.A.;
SZYMCZAK, M.

Asymmetry in the angular distribution of the neutrons emitted in the
 π -meson capture process in calcium. Acta physica Pol 21 no.4:313-327
Ap '62.

1. Joint Institute for Nuclear Research, Laboratory of Nuclear
Problems, Dubna.

KNYAGINICHEV, M.I.; KOMAROV, V.I.

Determining wheat flour quality by its swelling in acids.
Izv. vys. ucheb. zav.; pishch. tekhn. no.6:132-135 '63.

(MIRA 17:3)

1. Leningradskiy tekhnologicheskii institut kholodil'noy
promyshlennosti i Vsesoyuznyy institut rasteniyevodstva.

BUTSLOV, M.M.; KOMAROV, V.I.; SAVCHENKO, O.V.; ZRELOVA, N.N.,
tekhn. red.

[Isotropic discharge chamber for recording the tracks of
relativistic charged particles] Izotropnaia razriadnaia ka-
mera dlia registratsii trekov reliativistskikh zariazhen-
nykh chastits. Dubna, Ob"edinennyi in-t iadernykh issledo-
vaniy, 1964. 16 p. (MIRA 17:4)

KNYAGINICHEV, M.I.; KOMAROV, V.I.

Effect of concentration and of the acids pH on the swelling
of flours with strong and weak gluten. Biokhim. zer. 1
khlebopech. no.7:180-194 '64. (MIRA 17:9)

1. Leningradskiy tekhnologicheskiy institut kholodil'noy
promyshlennosti i Vsesoyuznyy institut rasteniyevodstva.

TUPITSYN, I. F.; KOMAROV, V. I.; Prinimala uchastiye BOTVINKINA, A. A.

Study of the migration of deuterium from the hydroxyl group
to the phenol ring. Zhur. ob. Khim. 34 no.6:1703-1710 Je '64.
(MIRA 17:7)

ACCESSION NR: AP4042592

S/0056/64/046/006/2245/2247

AUTHORS: But'alog, M. M.; Komarov, V. I.; Savchenko, O. V.

TITLE: Isotropic discharge chamber for the registration of relativistic charged particle tracks

SOURCE: Zh. eksper. i teor. fiz., v. 46, no. 6, 1964, 2245-2247

TOPIC TAGS: relativistic particle, spark discharge chamber, particle detector, cosmic ray particle, ionization chamber, electron multiplier

ABSTRACT: With an aim at eliminating some of the deficiencies of spark chambers (anisotropy for particles with trajectories inclined to the field direction, difficulty of observing stopped charged particles, lack of discrimination of charged particles with different ionizing abilities), the authors describe an isotropic discharge chamber which yields, under conditions of local multiplication of

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ACCESSION NR: AP4042592

the primary electrons, clear tracks of charged particles with ionizing ability near minimum. The chamber is a plane-parallel capacitor with brass electrodes. Scintillation counters connected for coincidence select cosmic rays passing through the working volume in approximately vertical direction. The incident cosmic ray produces local electron multiplication and the resultant weak light along the particle trajectory is focused onto the cathode of an image amplifier. The track image is photographed. The apparatus can be adapted for use in experiments with elementary particles. "The authors thank L. M. Soroko for constant help in the work and for a discussion of the results." Orig. art. has: 2 figures.

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy
(Joint Institute of Nuclear Research)

SUBMITTED: 03Apr64

ENCL: 01

SUB CODE: NP

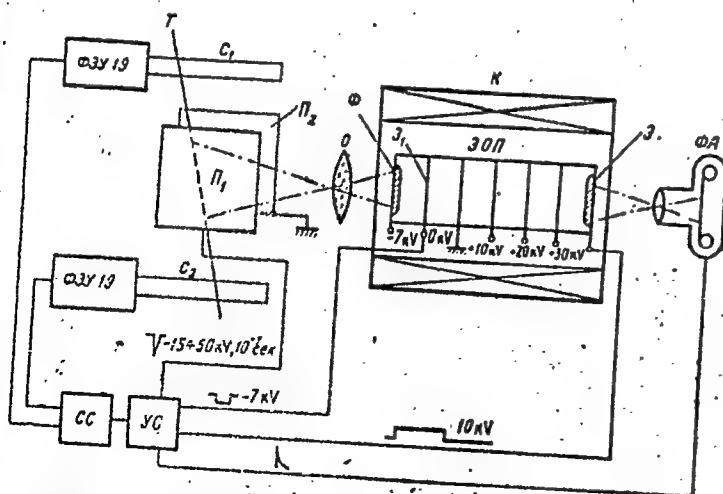
NR REF SOV: 004

OTHER: 002

Card 2/3

ACCESSION NR: AP4042592

ENCLOSURE: 01



- П - chamber electrodes
- С - scintillation counter
- ФЭУ-19 - photomultiplier
- CC - coincidence circuit
- CY - control circuit
- Ф - photocathode
- 30П-19 - electron-optical converter
- Ф - photocathode
- З1 - screen of first stage of el. opt. conv.
- З - output screen of el. opt. conv.
- К - focusing coil
- ФД - photo camera
- Т - cosmic-particle trajectory

General diagram of isotropic discharge chamber

Card 3/3

KOMAROV, V.I.; POSTNIKOV, D.V.

Effect of geological age and depth of occurrence on the
reservoir properties of arenaceous rocks. Dokl. AN SSSR
159 no.1:106-108 N '64. (MIRA 17:12)

1. Ufimskiy neftyanoy nauchno-issledovatel'skiy institut.
Predstavleno akademikom N.M. Strakhovym.

KOMAROV, V.K., inzhener.

Increasing the distance between the anchor supports of steel pipelines.
Gidr.strel. 22 no.8:19-21 Ag '53. (MLRA 6:8)
(Pipe lines)

KOMAROV, V. K.

KOMAROV, V.K., inzhener; SUDEILOVSKIY, A.O., inzhener.

Expansion pieces for metallic pipelines. Gidr.stroi. 23 no.5:
17-19 '54. (MIRA 7:8)
(Pipelines)

KOMAROV, V.K., aspirant

Changes in weight indices of flat steel gates used in largest
domestic hydraulic installations. Sbor.trud.MISI no.22:90-127 ' 58.
(MIRA 11:12)

(Hydraulic engineering)

16(4)
AUTHORS: Koshurnikov, N.L., and Komarov, V.K., Engineers SOV/98-59-4-5/17
TITLE: Breakdown of a Flood Gate Made of Low-Alloy Steel
(Razrusheniye zatvora iz nizkolegirovannoy stali)
PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, 1959, Nr 4, pp 23-27 (USSR)
ABSTRACT: The article deals with the breakdown of a 3.5 x 5.7 m flood gate made of "St.NL-2" type low-alloy steel. The defects consisted of crosswise ruptures and fissures in the central part of the flood gate and also along its welding joints. In addition to this, the flood gate had deflected inward as much as 135-150 mm. The breakdown was attributed to insufficient stability against vibration stress, which in its turn was caused by the following factors: 1) poor welding; 2) poor design; 3) incorrect pressure distribution within the flood gate's framework; 4) wrongly-made apertures and slots which caused the flood gate vibrate even when closed. The break-

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SOV/98-59-4-5/17

Breakdown of a Flood Gate Made of Low-Alloy Steel

down was also hastened by an exceedingly long service period in a half-opened state, thus promoting vibration. There were no inspections made for as long as two navigation seasons. As a result, the paint had completely disappeared and the flood gate was thus seriously corroded. There are 2 tables, 3 diagrams and 2 Soviet references.

Card 2/2

KOMAROV, V.K., inzh.

Special problems in designing trash racks. Gidr.stroi. 29
no.3:44-46 Mr '60. (MIRA 13:6)
(Hydroelectric power stations—Equipment and supplies)

KOMAROV, V.K., inzh.

Lightening the gate track parts of hydraulic structures. Oidr.
stroil. 31 no.3:22-23 Mr '61. (MIRA 14:4)

(Hydraulic structures)

KOMAROV, Vladimir Leont'yevich, akad.; IORDANSKIY, A.D., red. izd-va;
UL'YANOVA, O.G., tekhn. red.

Deceased 1945

[Origin of plants] Proiskhozhdenie rastenii. Moskva, Izd-vo
Akad.nauk SSSR, 1961. 189 p. (MIRA 14:12)
(Plants--Evolution)

ACCESSION NR: AT4035115

8/3092/63/000/001/0119/0133

AUTHORS: Abroyan, M. A.; Komarov, V. L.

TITLE: Pulsed large-current ion source

SOURCE: Moscow. Nauchno-issledovatel'skiy institut elektrofizicheskoy apparatury*. Elektrofizicheskaya apparatura; sbornik statey, no. 1, 1963, 119-133, and chart B facing away from p.204

TOPIC TAGS: ionized plasma, plasma jet, plasma source, proton synchrotron, plasma injection, ion beam, ion source

ABSTRACT: In view of the lack of published data on ion sources with beam currents on the order of 1 ampere and above, the authors report an investigation of a pulsed ion source of the dual plasmatron type, intended for pre-injection in a proton synchrotron. The present dual-plasmatron output limit, approximately 530 milliamperes, has been increased by modifying the geometry in the ion selection

Card 1/5

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000824110004-1

ACCESSION NR: AT4035115

region and by operating at a forced discharge mode. In addition to attaining large current it was necessary to impart to the beam definite optical characteristics to match it to the optical system of the accelerator tube. The plasma generation principle is the same as proposed by Ardenne (Tabellen der Elektronenphysik, Ionenphysik und Uebermikroskopie, Veb Deutsch. Verlag der Wissenschaften, Berlin, 1956). The pulsed current reaches 1.5 amperes, and a focused ion beam with a current of approximately 170 milliamperes can be obtained, with a minimum diameter of 10 mm at 70 keV. Experiments show that if an immersion lens with larger potentials and compensation is used, a much larger ion current can be focused in this diameter. The present value of the beam current is limited by the limits of plasma flow through the emission aperture in the selection region, and by the slight divergence of the plasma as it diffuses through a small aperture. Further increase in the ion current can be attained by increasing the source dimensions and source parameters. A continuous current of 1 ampere can be attained by improving the cooling

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ACCESSION NR: AT4035115

of the anode and of the grid in the drawing electrode. Multi-jet plasma sources, which produce a dense plasma with large surface in the selection region, will contribute to the production of larger ion beams. The authors thank I. F. Maly*shev for interest in the work, F. G. Zheleznikov and A. I. Solny*shkov for a useful discussion, and V. S. Fokin, V. A. Grinevich, and I. N. Dorofeyev for help with the work. Orig. art. has: 12 figures.

ASSOCIATION: None

SUBMITTED: 00

DATE ACQ: 07May64

ENCL: 02

SUB CODE: ME, NP

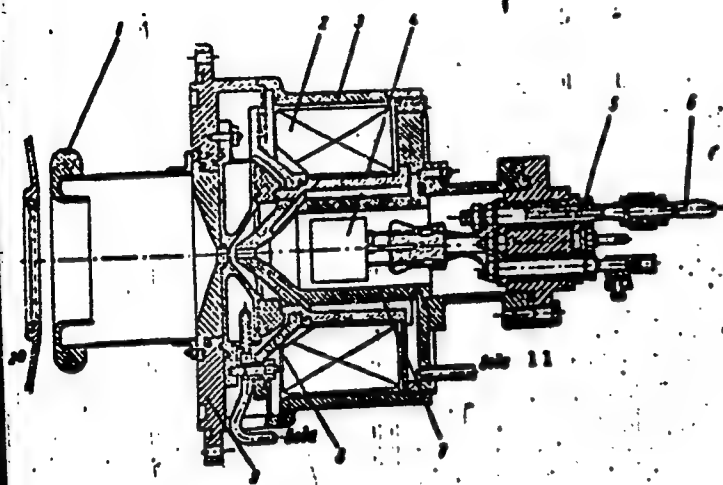
NR REF SOV: 006

OTHER: 003

Card 3/5

ACCESSION NR: AT4035115

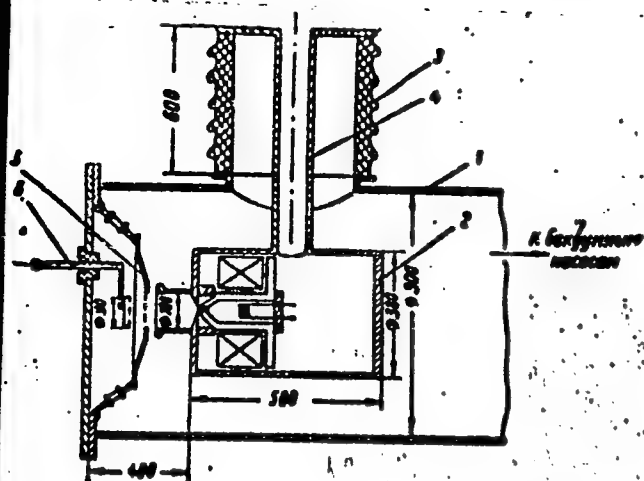
ENCLOSURE:01



Construction of ion source

- 1 — gasket, 2 — coil, 3 — armor,
- 4 — cathode, 5 — cathod current
- lead, 6 — gas supply, 7 — intermed-
- iate anode, 8 — cooling unit, 9 —
- principal anode, 10 — drawing electrode
- with grid, 11 — water

Card 4/5



- 1 — vacuum container, 2 — auxiliary container in which the source is located, 3 — 200 kV insulator, 4 — connecting tube through which the source is fed and cooled, 5 — drawing electrode with grid, 6 — moving collector, 7 — to vacuum pumps

Card 5/5

KOMAROV, V. L.

8/089/62/013/006/019/027
B102/B186

AUTHORS: G. T. and M. R.

TITLE: Nauchnaya konferentsiya Moskovskogo inzhenerno-fizicheskogo instituta (Scientific Conference of the Moscow Engineering Physics Institute) 1962

PERIODICAL: Atomnaya energiya, v. 13, no. 6, 1962, 603 - 606

TEXT: The annual conference took place in May 1962 with more than 400 delegates participating. A review is given of these lectures that are assumed to be of interest for the readers of Atomnaya energiya. They are following: A. I. Leypunskiy, future of fast reactors; A. A. Vasil'yev, design of accelerators for superhigh energies; I. Ya. Pomeranchuk, analyticity, unitarity, and asymptotic behavior of strong interactions at high energies; A. B. Migdal, phenomenological theory for the many-body problem; Yu. D. Fivovskiy, deceleration of medium-energy antiprotons in matter; Yu. M. Kogan, Ya. A. Izrael'skiy, theory of the Mössbauer effect; M. I. Ryazanov, theory of ionization losses in nonhomogeneous medium; Yu. B. Ivanov, A. A. Rukhadze, h-f conductivity of subcritical plasma;

Card 1/4

35

Nauchnaya konferentsiya...

S/089/62/013/006/019/027
B102/B186

design of 30-Mev electron linear accelerator; Ye. G. Pyatnov, A. A. Glashov, V. G. Lopato, A. I. Finogenov, G. M. Skapskiy, V. D. Selesnev, experimental characteristics of low-energy electron linear accelerators; G. A. Zeytlenk, V. M. Levin, S. I. Piskunov, V. L. Svirnov, V. K. Khokhlov, radiocircuit parameters of N^2B (LUR)-type accelerators; G. A. Tyagunov, O. A. Val'dner, B. M. Gokhberg, S. I. Korshunov, V. I. Kotov, Ye. M. Moroz, accelerator classification and terminology; O. S. Milovanov, V. B. Varaksin, P. R. Zenkevich, theoretical analysis of magnetron operation; A. G. Tragov, P. R. Zenkevich, calculation of attenuation in a diaphragmed waveguide; Yu. P. Lazarenko, A. V. Ryabtsev, optimum attenuation length for linear accelerator; A. A. Zhigarev, R. Ye. Yeliseyev, review on trajectographs; I. G. Morozova, G. A. Tyagunov, review on more than 500 ion sources; M. A. Abroyan, V. L. Komarov, duoplasmatron-type source; V. S. Kuznetsov, A. I. Solnyashkov, calculation and production of intense ion beams; V. M. Rybin (Ye. V. Arzenskiy), inductive current transmitters of high sensitivity; V. I. Korosa, G. A. Tyagunov, kinetic description of linear acceleration of relativistic electrons; A. D. Vlasov, phase oscillations in linear accelerators; E. L. Burakova, G. V. Voskresenskiy, beam field effects in the waveguide of an electron linear accelerator; E. S. Bobovikov,

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6. 277
L 59241-65 ENT(m)/EPA(m)-2/ENA(m)-2 Pt-7 IJP(c) GS

ACCESSION NR: AT5007937

S/0000/64/000/000/0507/0512 59
8/11

AUTHOR: Abroyan, M. A.; Gerasimov, V. P.; Zheleznikov, F. G.; Zablotskaya, G. R.;
Ivanov, N. F.; Ivlev, A. V.; Komarov, V. L.; Kuznetsov, V. S.; Letmanizova, G. M.;
Royfe, I. M.; Solnyshkov, A. I.

TITLE: High-current injector of a linear accelerator with strong focusing

SOURCE: International Conference on High Energy Accelerators. Dubna, 1963. Trudy.
Moscow, Atomizdat, 1964, 507-512

TOPIC TAGS: linear accelerator, strong focusing accelerator, electron optics

ABSTRACT: Conditions governing injection in linear proton accelerators determined the requirements on the ion beam, which were of the following order: energy, 700 kev; beam current, 400 milliamperes; beam diameter, 10 millimeters; pulse duration, 10-15 microseconds; energy stability, 0.5%; angular divergence, $\pm 5 \cdot 10^{-3}$ radian. The principal difficulties occur in the development of a system for producing and forming an ion beam with a large current from a powerful stabilized high-voltage source. For particle energy of 700 kev, a variation of the open machine is chosen which ensures good operational characteristics. In the case of large currents, the effect of the beam's spatial charge is substantial and must be taken into account. It

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ACCESSION NR: AT5007937

3
considerably complicates the design of the ion-optical system. Experimental testing of the selected version of the optical system for a proton beam with a current of the order of 0.5 ampere confirmed the correctness of the theoretical conclusions and indicated the possibility of producing a proton injector with the above parameters. The author discusses the following topics: design of a system for forming the beam; the experimental setup (injector power supply, high-voltage stabilized power supply circuit, ion source, and current characteristics); the results of the measurements (e.g. current density distribution over tube cross-section). "In conclusion, the author thanks I. F. Malyshev for his constant interest and cooperation during the work, and also R. P. Zaytseva for doing the computer calculations." Orig. art. has: 8 figures.

ASSOCIATION: Nauchno-issledovatel'skiy institut elektrofizicheskoy apparatury imeni D. V. Yefremova GKAE SSSR (Scientific-Research Institute of Electrophysical Equipment, GKAE SSSR)

Card 2/3

L 59241-65

ACCESSION NR: AT5007837

SUBMITTED: 26 May 64

ENCL: 00

SUB CODE: NF

NO REF SOV: 003

OTHER: 002

Card 3/3

KOMAROV, V.I.; MOROZOV, R.B.; TARBEYEV, G.A.

Effect of the reservoir properties of rock on the nature of
the relation between resistance and water saturation. Izv. vy.
ucheb. zav.; nef't' i gaz 7 no.11:9-12 '64. (MIRA 18:11)

1. Bashkirskiy gosudarstvennyy universitet.

KOMAROV, V.L.; POSTNIKOV, D.V.

Decisive influence of the conditions of sediment accumulation on
the reservoir properties of sandy rocks. Dokl. AN SSSR 140
no.4:925-927 0 '61. (MIRA 14:9)

1. Ufimskiy neftyanoy nauchno-issledovatel'skiy institut.
Predstavleno akademikom N.M.Strakhovym.
(Volga-Ural region--Petroleum geology)

KOMAROV, V.L.

Estimating the effectiveness of geophysical methods in the
determination of reservoir properties of rocks. Izv.vys.
ucheb.zav.; neft' i gaz 5 no.4:19-23 '62. (MIRA 16:1)
(Oil sands—Analysis)
(Prospecting—Geophysical methods)

KOMAROV, V.L.

Use of logging data in studying carbonate profiles. Razved.i
prom.geofiz. no.32:11-17 '59. (MIRA 13:4)
(Oil well logging, Electric)

OKUN', G.S.; KOMAROV, V.M.; KATS, Sh.N.

Use of MRShchPr-54 instruments in testing for creep and long-period
strength. Zav.lab. no.11:1387-1388 '59. (MIRA 13:4)

1.TSentral'nyy kotloturbinnyy institut im. I.I.Polzunova.
(Testing machines)

KOMAROV, V.M., inzh. (Odesk)

Let's improve the system of repairing construction machinery.
Stroi. truboprov. 6 no. 2:27-28 F '61. (MIRA 14:5)
(Building machinery—Maintenance and repair)

KOMAROV, V. M., inzh.; VERKHOVSKIY, V. M., inzh.

Mechanization of transportation, storage, and placement of
ammonia in the U. S. A.; a review. Zemledelie 24 no.12:80-82
D '62. (MIRA 16:1)

(United States—Ammonia as fertilizer)

KOMAROV, V.M., inzh.

Effect of some factors on the efficiency of machines for the
placement of liquid mineral fertilizers. Trakt. i sel'khoz mash.
no.8:24-26 Ag '64. (MIRA 17:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut mekhanizatsii
sel'skogo khozyaystva.

EWI(1)/EPF(2)-2/ENG(4)/EPR - Pa-3/Pa-4/Pa-4 WW/GC

10.11.820

UR/01.11.05/000/02/0031/0032

AUTHOR: Kozlov, V. M. (Engineer)

35
32
B

of distribution devices in machines for introducing liquid

selkhoz mashiny, no. 4, 1965, 31

flow, distribution statistics, agriculture, nozzle area,
AN 3 herbicide ammonia machine, NH₃ 1 micrograph

Fertilizers must be distributed evenly, and the uniformity of
is conditioned by the deviation of the diameter of each
arithmetic means of the distribution of all nozzles. The flow
is expressed by

$$q = \mu \frac{\pi D^2}{4} \sqrt{2g}$$

discharge coefficient, D is the nozzle hole diameter, and P/r
hydrostatic pressure. For uniform distribution, these three factors
same for all nozzles, but this is difficult to achieve. In

L 52084-45

ACCESSION NR: AP4011820

3

practice. μ ranges from 0.60 to 0.64; D (measured with microscope MB3-1) ranges from 0.001 to 0.002 mm for ten different nozzles and from 0.001 to 0.002 mm for ten different pressures. The pressure is assumed to vary along the line as reported by Ya. G. Yanitsky, and A. A. Petrov, "Izmeneniye raskhoda vody pri izmenenii daniya", (1961). For the initial premises, a test stand was constructed consisting of a pump, a distributor, a trough for the receiving liquid, a trough for the receiving fertilizer, a trough for the receiving water, and a distributor device. The distributor device could be moved by a horizontal rack. Tests of the distributor device produced by "Izvoysel'mash" gave the results shown in Fig. 1, part a shows the distribution along the line, and part b shows the time variations for all nozzles. The uniformity of the distribution, a variable regime and the test results shown in Fig. 1 on the Enclosure. The distributor is adjustable by forming the flow through the distributor, which could be increased or decreased by means of a valve, 3 figures, and 6 equations.

SUBMITTED: 00
NO REF SOV: 004
Card 2/4

ENCL: 02
OTHER: 000

SUB CODE: 00, ME

AF5011920

ENCLOSURE 01

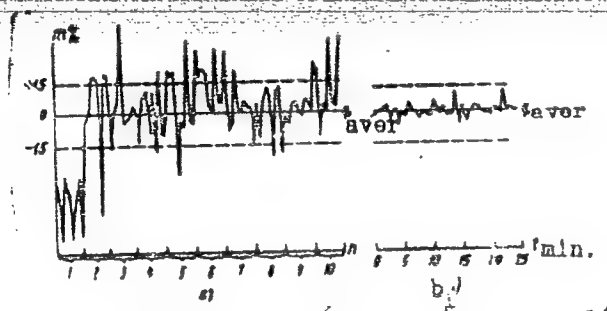


Fig. 1.

Card 3/4

L 51084-6
ACCESSION NR: AP5011820

ENCLOSURE: 02

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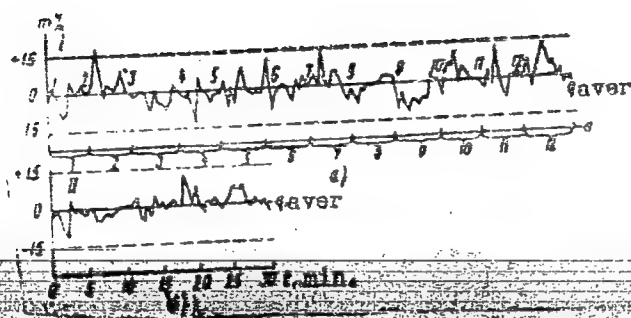


Fig. 2.

Card 4/4

KOMAROV, Vladimir Mikhaylovich, inzh.-polkovnik, letchik-kosmonavt

To you, my country. Av. i kosm. 47 no.11:12-17 N '64.

(MIRA 17:11)

PETRUNIN, I.Ye., kand.tekhn.nauk; KOMAROV, V.M., inzh.

"Metal soldering in furnaces with protective atmospheres" by
R.N.Esenberlin. Reviewed by I.N.Petrinin. Svar.proizv.
no.8:43 Ag '60. (MIRA 13:7)

(Solder and soldering)
(Metallurgical furnaces--Protective atmospheres)
(Esenberlin, R.N.)

KOMAROV, V.M.

Eruptions following vaccination against smallpox. Sov. med. 25
no.8:120-122 Ag '61. (MIRA 15:1)

1. Iz kafedry kozhnykh i venericheskikh bolezney (zav. - dotsent
L.A.Abramovich) Chitinskogo meditsinskogo instituta i Chitinskogo
oblastnogo kozhno-venerologicheskogo dispansera (glavnyy vrach
V.M.Komarov). (SMALLPOX) (ALLERGY)

KOMAROV, V.M., letchik-kosmonavt, inzh.-polkovnik, Geroy Sovetskogo
Soyuza

Our flight is a flight of researchers. Priroda 53 no. 11:4-6

KOMAROV, Viktor Boevich; KOLOMIYTSOVA, O., redaktor; LESHCHINSKAYA, M.,
tekhnicheskii redaktor

[How astronomers study celestial bodies.] Kak astronomy izu-
chaliut nebesnye tela. Moskva, Gos.izd-vo kul'turno-prosvetitel'-
noi lit-ry, 1956. 92 p. (Bibliotekha v pomoshch' lektoru, no.5)
(Astronomy) (MLBA 9:4)

3(1)

PHASE I BOOK EXPLOITATION

SOV/1619

Komarov, Viktor Noyevich

Dvizheniya zvezd (Star Motion) Moscow, Gostekhisdat, 1957. (Series: Populyarnyye lektsii po astronomii, vyp. 6) 20,000 copies printed.

Ed. (Title page): P. P. Parenago, Corresponding Member, USSR Academy of Sciences;
Ed. (Inside book); L. V. Samsonenko; Tech. Ed.: S. S. Gavrilov

PURPOSE: This booklet is intended for the general reader.

COVERAGE: This popular science booklet introduces the reader to stellar dynamics, the science of stars and stellar system motion. The author reviews the discoveries of the past, and discusses the rotation of the Galaxy and the displacement of galaxies in relation to each other. There are 24 figures. No personalities are mentioned. There are no reference given.

Card 1/2

KOMAROV, V.N.; TITOV, V., red.; MUKHIN, Yu., tekhn.red.

[Marvelous phenomena in the sky] Chudesnye iavleniia na nebe.
Moskva, Gos.izd-vo polit.lit-ry, 1960. 94 p. (MIRA 13:7)
(Astronomy)

ZIGEL', Feliks Yur'yevich; KOMAROV, V.N., red.; AKSEL'ROD, I.Sh.,
tekh.red.

[Stars lead to infinity; pictures of the universe] Zvezdy vedut
v beskonechnost'; kartiny mirozdaniia. Moskva, Gos.izd-vo
fiziko-matem.lit-ry, 1961. 195 p.

(Astronomy)

(MIRA 14:6)

L 02018-67 ENT(m) IJP(c)

ACC NR: AP6035632

SOURCE CODE: UR/0089/66/020/005/0419/0421

AUTHOR: Zil'berman, B. Ya.; Komarov, V. N.; Pushlenkov, M. F.

ORG: none

TITLE: Calculation method for azeotropic steam fraction, applied to the TBP-CCl₄ system

SOURCE: Atomnaya energiya, v. 20, no. 5, 1966, 419-421

TOPIC TAGS: azeotropic mixture, fractional distillation

ABSTRACT: The propagation principle of uniform molar flow for stratified systems was used to investigate the azeotropic propagation principle leads to the concentration of "fictive" components in the sum of the liquid phases. The equation for the system is analogous to that of a homogeneous two-component system; the difference is that in the homogeneous condensate phase a concentration of fictive components appears. Orig. art. has: 2 figures and 3 formulas. [NA]

SPB CODE: 07 / SUBM DATE: 23 Jul 65 / ORIG REF: 003 / OTH REF: 004

Card 1/1

UDC: 66.048.6:661.723.2466.062.6

0922 0034

KOCARKO S.M. doktor tekhn. nauk; BORODULIN A.A. dokt. khim. nauk; KOMAROV V.N.; LIAMIN, A.G.; MIKHAYLOV, V.A.; SVISTUNOV, V.G.

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000824110004-1

Propagation of the chemical reaction zone in acetylene in large diameter pipes. Khim.prom. no.7:496-501 JI '62. (MIRA 15:9)

1. Institut khimicheskoy fiziki AN SSSR i Gosudarstvennyy institut po proyektirovaniyu zavodov kauchukovoy promyshlennosti. (Acetylene) (Gas pipes) (Combustion)

ACCESSION NR: AP4034581

S/0076/64/038/004/0955/0956

AUTHOR: Tikhomirov, M. V.; Komarov, V. N.; Tunitskiy, N. N.

TITLE: The formation of the N sub 3 sup + and N sub 4 sup + ions in the mass-spectrometer

SOURCE: Zhurnal fizicheskoy khimii, v. 38, no. 4, 1964, 955-956

TOPIC TAGS: nitrogen, mass spectra, mass spectrometry, N sub 3 sup + ion, N sub 4 sup + ion, ionic current intensity, electron energy, formation cross section, sup 14 N sup 15 N sup ++ molecular ion, vibrational excitation, N sub 2 sup + ion, N sub 2 sup + ion

ABSTRACT: The mass spectra of nitrogen at pressures to 1×10^{-7} mm Hg was studied. The relationship between the ionic current intensities and the electron energies at $m/e = 42$ and 56 showed the mean potentials at which these peaks occur are 20.4 ± 1.3 and 46.5 ± 1 ev, respectively. The peak at 42 was considered to be the N_3^+ ion, the cross section of its formation is about 5×10^{-18} cm². The potential of the peak at 56 and of the double charged molecular ion $^{14}N^{15}N^{++}$ are close. Since there is no isotopic peak $m/e = 57$ it was concluded that N_4^+ is not formed, but that

Card 1/2

KOMAROV, V. P., Cand Geogr Sci (diss) -- "The geography of agriculture in Orenburg Oblast". Perm', 1960. 19 pp (Min Higher and Inter Spec Educ RSFSR, Perm' State U im A. M. Gor'kiy), 225 copies (Kl., No 14, 1960, 128),

KOMAROV, V.P., inzh.

Assembling a 100 m³ compressor in 19 days. Mont.i spets.rab.v stroi.
22 no.6:15-16 JI '60. (MIRA 13:7)

1. Novo-Troitskoye uprevleniye tresta Vostokmetallurgmontash.
(Compressors)

KOMAROV, V.P. (Lugansk)

Mineral and raw material resources of the Ukrainian S.S.R. Geog.
v shkole 25 no.4:16-20 J1-Ag '62. (MIRA 15:8)
(Ukraine--Mines and mineral resources)